

REMARKS

**STATUS**

The Examiner determined applicant's arguments filed 29 October 2008 were not persuasive and the Office Action of 12/19/2008 was made final.

Claims 10-13, 17, 22-24, and 26 were rejected under 35 USC 103(a) as being unpatentable over Hocheng (US 6,315,885) in view of Inoue (US 3,616,346).

Claims 14, 20, 21 and 25 were rejected under 35 USC 103(a) as being unpatentable over Hocheng (US 6,315,885) in view of Inoue (US 3,616,346), as applied to claims 10-13, 17, 22-24 and 26 and further in view of Tyler et al. (US 4,004,992).

Claims 18-19 were rejected under 35 USC 103(a) as being unpatentable over Hocheng (US 6,315,885) in view of Inoue (US 3,616,346), as applied to claims 10-13, 17, 22-24 and 26 and further in view of Kool et al. (US 6,599,416).

**APPLICANT'S ACTIONS AND ARGUMENTS**

Claims 1-9, 15, and 16 have previously been canceled.

Apparatus claims 10-12 are canceled herein to place the Application in better form for consideration on appeal. Furthermore, the limitations of dependent claim 17 have been incorporated with the amendments of independent claim 13, and claim 17 has been cancelled. Thus, claims 13-14, and 18-26 remain active in the application.

The present invention presents a process for removing surface regions of a component.

With regards to the rejection of claims 10-13, 17, 22-23, and 26 under 35 USC 103(a) as being unpatentable over Hocheng in view of Inoue:

Claim 13 has been amended to include, in relevant part, "... wherein a block is defined by a plurality of current pulses, pulse duration, pulse interval, current level, and pulse shape, and applying at least a first block which includes at least two consecutives pulses of the same polarity with an interval between the pulses". Support for this amendment is provided at paragraph [022].

Claim 13 is now more clearly distinguishable from the combination of *Hocheng* and *Inoue* because *Hocheng* in view of *Inoue* cannot generate the "blocks" of pulses presented in amended claim 13 of the instant invention.

Applicant reasserts the previous arguments that explain why the design of Hocheng does not allow it to be modified to provide both a negative pulse and a positive pulse.

Further, even if the Examiner combines *Hocheng* with *Inoue*, the waveforms that are generated by the combination are distinguishable from the waveforms created by the instant invention.

Specifically, even if *Hocheng* is combined with *Inoue*, since *Hocheng* alone is incapable of generating both a negative pulse and a positive pulse, and *Inoue* uses a convention flip-flop configuration of its multivibrator network 18 whose output is waveforms of alternating polarity with only variations in the magnitude and time delay between the alternating polarity waveforms (see *Inoue* column 3, lines 35-column 4, line 38), the combination *Hocheng* and *Inoue* would not generate the waveforms/pulses created by the instant invention as recited in amended claim 13.

As shown in Figure 3 of the instant invention, a series ("block") of multiple current pulses 40 of the same polarity is applied between the electrode 10 and the component 13. The "block" is followed by a series of multiple current pulses 40 (another "block") of the opposite polarity. The instant inventions ability to apply uniquely specified current pulse blocks provides an optimal process for removing the surface regions of a component by removing the coating more quickly and economically. The specific parameters of each pulse "block" are matched to a constituent to be removed in order to optimize the removal of the constituent.

In contrast, *Inoue* unambiguously asserts that the duration of a positive pulse followed by a time delay interval and followed next by a reverse pulse is an "essential feature" of that invention, thereby precluding applying the pulse configuration of the instant invention. See column 4, lines 20-39, and specifically see column 4 lines 24-30. The components of *Inoue* cannot apply current pulses that have the same polarity and is limited to applying a sequence of pulses having alternating polarity.

The instant invention, as shown in Figure 2 and Figure 3, applies a variety of blocks of pulse sequences, such as having blocks of pulses with alternating polarity as well as blocks of pulses having the same polarity. The ability to use both this wide variety of negative and positive current pulses aids in developing an optimized pulsing pattern matched to a constituent of an alloy to be removed - see paragraph [0027].

Where *Hocheng* does not provide a dual polarity (negative and positive) pulse, and *Inoue* does not provide the waveform blocks created by the instant invention, the combination of *Hocheng* and *Inoue* does not teach the instant invention.

With regards to the rejection of claims 14, 20, 21 and 25 under 35 USC 103(a) as being unpatentable over Hocheng in view of Inoue and in further in view of Tyler et al.:

Applicant reasserts the previous arguments in addition to the above arguments against the combination of Hocheng and Inoue.

With regards to the rejection of claims 18-19 under 35 USC 103(a) as being unpatentable over Hocheng in view of Inoue and in further view of Kool et al.:

Applicant reasserts the previous arguments in addition to the above arguments against the combination of Hocheng and Inoue.

#### Conclusion

In accordance with the above amendments and/or remarks, the Examiner is requested to pass this application to issuance. The commissioner is hereby authorized to charge any appropriate fees due in connection with this paper, including the fees specified in 37 C.F.R. §§ 1.16 (c), 1.17(a)(1) and 1.20(d), or credit any overpayments to Deposit Account No. 19-2179.

Respectfully submitted,

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